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Hepatic Failure due to Hepatitis B Reactivation in a Patient with Ulcerative Colitis Treated with Prednisone

Jonas Zeitz, Beat Muellhaupt, Heiko Fruehauf, Gerhard Rogler, Stephan R. Vavricka

Division of Gastroenterology and Hepatology; University Hospital, Raemistrasse 100, CH-8091 Zurich, Switzerland

Correspondence to:
Stephan R. Vavricka, MD
Division of Gastroenterology and Hepatology
University Hospital
Raemistrasse 100
CH-8091 Zurich
Switzerland

Tel: 0041 44 255 21 24
Fax: 0041 44 255 45 03
Email: stephan.vavricka@usz.ch

Letter

To the Editor:

We read with great interest the article by Chen and colleagues regarding prophylactic lamivudine use in chemotherapy-associated hepatitis B reactivation in non-Hodgkin's lymphoma.¹ Reactivation of hepatitis B virus (HBV) is a well-recognized complication in patients with chronic HBV infection who receive immunosuppressive or cytotoxic therapy.² Many recent studies suggest a clear benefit of lamivudine in terms of clinical and virological HBV reactivation, overall mortality, HBV-related mortality and interruptions or discontinuations in the immunosuppressive treatment.³ Furthermore, various different chemotherapeutic agents such as corticosteroids and anthracyclines are proven risk factors for HBV reactivation.⁴ We would like to emphasize to consider a HBV reactivation after discontinuation of a prednisone therapy and report a patient with HBV-infection who developed HBV reactivation following corticoid treatment of ulcerative colitis.

A 43-year-old male patient was diagnosed with ulcerative colitis in 2003. Initially, the patient responded well to a systemic therapy with mesalazine 3g/d. In May 2005 he developed another episode of ulcerative colitis, this time more severe with 4 to 6 bowel movements per day and intermittent rectal bleeding, mild fever (38.8°C), oligoarticular arthritis and lower abdominal tenderness. A colonoscopy was performed, which showed a left-sided colitis. A therapy with prednisone 50 mg/d and azathioprine 50 mg/d was initiated. Of note, LFTs were normal at this time. Two weeks later, the patient was well, prednisone was completely tapered and azathioprine was increased to 100 mg/d. Three months later the patient presented to the emergency department in an outside hospital with nausea, vomiting, right upper quadrant pain, and jaundice. LFTs were markedly elevated. AST was 2193 U/l, ALT 3396 U/L, GGT 69 U/L, bilirubine 18.25 mg/dl, prothrombine time 31%, and C-reactive protein was 4 mg/l. Further work-up revealed highly replicative hepatitis B (HBV-DNS PCR >110'000'000 IE/ml) reactivation (HBs-Ag pos, anti-HbcIgM neg, HBe-Ag neg, anti-HBe pos). Other viral serologies for hepatitis A, C, D, and HIV were all negative. Therapy with azathioprine was stopped. Abdominal sonography revealed ascites, normal calibre intra- and extrahepatic bile ducts and no gallstones. During the hospitalisation stool frequency increased to 6 per day with bloody diarrhea. The patient was started on prednisone 40mg/d, which had to be increased to 50 mg/d after 10 days. Colonoscopy revealed a mild flare of ulcerative colitis. In the course LFT's decreased (AST 213 U/l, ALT 364 U/l) and the patient could be discharged on 50 mg prednisone/d.

One week later the patient presented with abdominal pain, fatigue, progressive jaundice and extension of the abdomen. On admission the patient showed signs of hepatic failure with elevated LFT's and ascites. Paracentesis showed spontaneous bacterial peritonitis. The patient was transferred to our tertiary care center due to severe liver failure with hepatic encephalopathy (Grade 3) and coagulopathy (Factor V 7%, PT 10%, aPTT 88 sec). We immediately started a therapy with lamivudine and listed the patient for superurgent liver transplantation, which could be performed 24hours latter. One day after transplantation the patient presented with primary graft non function, which required immediate re-transplantation. After re-transplantation the patient recovered quickly. To prevent HBV re-infection, we initiated a long- term prophylaxis with anti-HBs immunoglobulins in combination with lamivudine. Three and a half years after re-transplantation there is no evidence for HBV reinfection and the patients has fully recovered. This case highlights the importance of HBV screening in IBD patients requiring an immunosuppressive therapy such as corticosteroids, methotrexate, azathioprine or new biological agents such as anti-TNF agents.^{5,6} In our opinion, HBV carriers with IBD requiring such a treatment should also be treated prophylactically with a nucleoside or nucleotide analogues approved for the treatment of HBV infection.

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